

AMENDMENTS TO THE CLAIMS

1. (Currently Amended) A method for coating a flexible substrate which comprises rotationally casting to the substrate a coating comprising a polyurethane composition formed from (a) a substantially linear isocyanate-terminated polyurethane prepolymer; and, (b) a curative agent containing a diol having a molecular weight of less than about 250 and, optionally, a secondary aliphatic diamine, wherein the polyurethane composition is formed in the absence of a non-linear isocyanate-terminated polyurethane prepolymer.
2. (Currently Amended) The method of Claim 1 wherein the flexible substrate is a fabric, a foam or a thin metal sheet.
3. (Original) The method of Claim 2 wherein the fabric is selected from the group consisting of nylon, rayon, polyester, cotton, wool, kevlar and fiberglass.
4. (Original) The method of Claim 2 wherein the foam is selected from the group consisting of polyurethane, polyethylene, vinyl polymer, rubber latex, nitrile and neoprene.
5. (Currently Amended) The method of Claim 1 wherein the substantially linear isocyanate-terminated polyurethane prepolymer is a reaction product of a polyol and an organic diisocyanate monomer selected from the group consisting of 2,4-toluene diisocyanate, 2,6-toluene diisocyanate, 4,4'-diisocyanatodiphenylmethane (MDI), phenylenediisocyanate (PPDI), diphenyl-4,4'-diisocyanate, 1,3-xylene diisocyanate, 1,4-xylene diisocyanate, 1,6-hexamethylene diisocyanate, 1,3-cyclohexyl diisocyanate, 1,4-cyclohexyl diisocyanate (CHDI), diphenylmethane diisocyanate (H(12)MDI) and isophorone diisocyanate.

6. (Original) The method of Claim 5 wherein the organic diisocyanate monomer is selected from the group consisting of MDI and PPDI.

7. (Currently Amended) The method of Claim 1 wherein the substantially linear isocyanate-terminated polyurethane prepolymer is a reaction product of an organic diisocyanate monomer and a polyol selected from the group consisting of ethylene glycol, diethylene glycol, ~~tetramethylene ether glycol~~, 1,2-propylene glycol, 1,3-propane diol, 1,4-butylene glycol, polytetramethylene ether glycol (PTMEG), polycarbonate and a dihydroxy polyester.

8. (Currently Amended) The method of Claim 1 wherein the substantially linear isocyanate-terminated polyurethane prepolymer is a reaction product of an organic diisocyanate monomer and a dihydroxypolyester.

9. (Currently Amended) The method of Claim 1 wherein the diol is selected from the group consisting of ethylene glycol, 1,2-propylene glycol, 1,3-propanediol, 1,3-butylene glycol, 1,4-butanediol, 2-methyl-1,3-propanediol, 1,5-pentanediol, neopentyl glycol, 1,6-hexanediol, 2-ethyl-2-propyl-1,3-propanediol, cyclohexyldimethanol, cyclohexanediol, hydroquinone di (betahydroxyethyl)ether, and ~~resorcinol di(betahydroxyethyl ether resorcinol di(betahydroxyethyl ether~~.

10. (Currently Amended) The method of Claim 1 wherein the substantially linear isocyanate-terminated polyurethane prepolymer is prepared by reacting an organic diisocyanate monomer with a polyol, in a mole ratio of organic diisocyanate monomer to polyol ranging from about 1.7:1 to about 12:1.

11. (Original) The method of Claim 1 wherein the diol is mixed with the secondary aliphatic diamine in an amount ranging from about 95 to 100 weight percent based on the total weight of the diol and diamine.

12. (Original) The method of Claim 1 further containing the secondary aliphatic diamine.

13. (Original) The method of Claim 12 wherein the secondary aliphatic diamine is selected from the group consisting of dimethylethylenediamine and piperazine.

14. (Original) The method of Claim 12 wherein the secondary aliphatic diamine is mixed with the diol in an amount ranging from about 0.25 to about 1 weight percent based on the total weight of the diamine and diol.

15. (Original) The method of Claim 12 wherein the total active hydrogen content of the diol and secondary aliphatic diamine is equal to about 80-115% of the total isocyanate content of the isocyanate-terminated polyurethane prepolymer.

16. (Original) The method of Claim 12 wherein the total active hydrogen content of the diol and secondary aliphatic diamine is equal to about 90-95% of the total isocyanate content of the isocyanate-terminated polyurethane prepolymer.

Claims 17-40. (Canceled)